

TUBERCULOSIS OF THE EAR

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TUBERCULOSIS rarely affects the middle ear and now is seldom seen. Classically, tuberculous otitis media is described as a disease of insidious onset characterized by painless otorrhea. Usually, the discharge is initially thin and odorless, later mucoid and thicker. We report a case of tuberculous otitis media.

L. J., a 30-year-old black man, was first seen in March 1982 with a six-week history of right ear pain, cough, nasal stuffiness, sore throat, intermittent fever, and generalized weakness. He was first seen at a Manhattan hospital where he was given ampicillin with no improvement in symptoms. Two weeks later he presented to his family physician who prescribed tetracycline 250 mg q.i.d. for one week, then doubled the dose for the next week. Nonspecific Gram positive cocci were identified and culture yielded alpha-hemolytic streptococcus.

The patient was referred to an otolaryngologist. The previously noted symptoms of right otalgia, cough, nasal stuffiness, sore throat, intermittent fever, and generalized weakness persisted. The right tympanic membrane bulged slightly in its superior third, mucus and pus were present in the external auditory canal. There was also pus in the right nasal cavity and lymphoid hyperplasia of the posterior pharyngeal wall.

The impression then was that the patient had resistant otitis media, suppurative sinusitis, and pharyngitis. Cephalexin 500 mg q.i.d. and a nasal spray were prescribed. One week later the patient had not improved although he had less otorrhea. The patient was switched to trimethoprim-sulphamethoxazole (Septra) one tablet double strength b.i.d. One week later there was no improvement in symptoms, and on physical examination a large polypoid mass was noted to fill the bony half of the external auditory canal.

He was admitted to hospital that day, where the patient related that during military service he was worked up for possible tuberculosis and that the evaluation turned out to be negative. Physical examination confirmed that a large polypoid mass filled the bony half of the right exter-

nal auditory canal. The rest of the physical examination was essentially unremarkable. The chest roentgenogram showed right and left upper lobe infiltrates consistent with tuberculosis. Plain mastoid roentgenograms were normal and CT scan of the brain, mastoid, and internal auditory canals showed decreased aeration of the right mastoid.

Hemoglobin content was 14.6 gm/dl and hematocrit 43.5%. Leukocyte count was 4,700 cmm with 54 polymorphonuclears, 30 lymphocytes, 11 myelocytes, three eosinophils, and four atypical lymphocytes. Sputum was positive for acid fast bacilli and culture yielded *Mycobacterium tuberculosis*. Audiogram revealed normal hearing in the left ear with a pure tone average of 3 dB. The right ear had a moderately severe to severe conductive hearing loss with a pure tone average of 62 dB.

On the sixth hospital day the patient was taken to the operating room for excisional biopsy of the right ear polyp. Culture taken at this time grew *Staphylococcus epidermidis* and diphtheroids. Histopathology revealed caseation necrosis, Langhans' type giant cells, and acid fast staining bacilli. After the first positive acid fast smear, the patient was given Rifampin 300 mg, two tablets daily, Isoniazid 300 mg, one tablet daily. Ethambutol (Myambutol) 400 mg, one tablet t.i.d. and Pyridoxine 50 mg daily. He was discharged after 20 days in hospital confinement. There is no longer any polypoid tissue in the right ear and, although the right tympanic membrane is intact, it is irregularly retracted. Follow-up audiogram showed an improvement in the right pure tone average to 40 dB. The patient still receives his antituberculous medication.

DISCUSSION

In 1980 Windle-Taylor and Bailey reported on 22 patients with tuberculous otitis media from 1959 to 1979. In their series, chest roentgenograms showed tuberculous changes in eight out of 19 cases examined. Otorrhea was a presenting symptom in all cases but painless in only 11. Histological examination of operative material was diagnostic in 20 cases. Mastoid roentgenograms were often reported normal. Facial palsy occurred in four cases. The cases treated with antituberculous chemotherapy alone recovered well, and no case needed operation once antituberculous therapy had been given. Lucente, Tobias, Parisier, and Som in 1978 noted that antituberculous medications should control the discharge from the ear, but that treatment should continue for 18 months.

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